

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
 Washington, D.C.

AUG 22 1997

FEDERAL COMMUNICATIONS COMMISSION  
 OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Advanced Television Systems	)	MM Docket No. 87-268
And Their Impact Upon The	)	
Existing Television Broadcast	)	
Service	)	

To: The Commission

**SUPPLEMENT TO PETITION FOR RECONSIDERATION**

WXXI Public Broadcasting Council ("WXXI"), through its attorneys, hereby files this Supplement to its Petition for Reconsideration filed on June 13, 1997 with respect to the Sixth Report and Order, released April 21, 1997 in the above-captioned proceeding, which adopted the Digital Table of Allotments and related technical rules regarding the digital television broadcast service. In support thereof, the following is shown:

1. WXXI is licensee of public television Station WXXI-TV, Rochester, New York, which operates on Channel \*21 and has been allotted DTV facilities on Channel 16. On February 5, 1996, WXXI filed a minor modification application to increase power for Station WXXI-TV (FCC File No. BPET-960205KE). That application remains pending. In addition, on February 28, 1996 WXXI filed an application for a new public television station on Channel \*61 at Rochester, New York (FCC File No. BPET-960228KF). WXXI's Channel \*61 application also remains pending, but the application is cut off and there are no competing applications or petitions to deny this application. See TV Applications Accepted for Filing and Notification of Cut-off Date, Report No. A-194, Mimeo No. 62035, released March 18, 1996 specifying a cut-off date of May 2, 1996.

2. WXXI's Petition for Reconsideration was based on preliminary interference and coverage analyses without the benefit of FCC Bulletin OET-69 ("OET-69"). The attached engineering statement supplements the Petition in light of the availability of OET-69.

3. WXXI currently operates Channel \*21 at 1230 kW and its pending application would increase power to 5 megawatts. Its DTV allotment on Channel 16 authorizes 50 kW for DTV service. Inasmuch as other area stations would operate DTV facilities at 1000 kW, an engineering study was conducted with respect to DTV operation on Channel 16. That study shows the station would receive substantial interference from existing Channel \*16 at Watertown, New York and would be unable to increase the WXXI-DT power for maximization purposes, including a directional antenna assumption that severely impacts WXXI's ability to increase power. In addition, WXXI's existing NTSC service on Channel 21 would receive substantial interference from the activation of Station WWTI-DT on Channel 21. The attached engineering statement also describes the efforts to identify an alternative DTV channel for WXXI use. These efforts were thwarted by the fact that the Commission has provided no guidelines on required protection of Canadian facilities and the fact that Canada has not adopted a DTV Table. It is essential that negotiations should be concluded with Canada on DTV matters in advance of resolution of the Commission's DTV proceeding, so that border stations such as WXXI may properly assess their allotments and alternatives.

4. For all of the foregoing reasons and for the reasons set forth in its Petition for Reconsideration, WXXI urges the Commission to:

- A. As a minimum, amend the WXXI-TV allotment to permit omnidirectional operation with power of at least 50 kW;
- B. Finalize its agreement with Canada, before closing the door on the ability of border stations such as WXXI to propose an alternative channel allotment not subject to the rule making process;
- C. Change the DTV allotment on Channel 21 at Watertown, New York in order to eliminate significant co-channel interference to WXXI; and
- D. Confirm the protection of WXXI's application on reserved Channel \*61 with an in-core DTV allotment.

Respectfully submitted,

WXXI PUBLIC BROADCASTING COUNCIL

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## **ENGINEERING STATEMENT**

in support of

**Petition for Reconsideration**

**WXXI**

Rochester, NY

The WXXI Public Broadcasting Council (WXXI) previously filed with the Commission a petition for reconsideration regarding the DTV channel allotment to be used with its WXXI-TV facility serving Rochester, NY. This engineering statement supplements the previously filed petition in light of the availability of Bulletin OET-69.

WXXI-TV currently is authorized to operate on Channel 21 with an ERP of 1230 kW. It has a pending application to increase its power to 5000 kW. The Commission has assigned Channel 16 to WXXI-DT at an ERP of 50 kW for DTV service.

WXXI is anxious to maximize its coverage given the fact that three colocated stations have been allotted DTV facilities of 1,000 kW ERP; the low ERP allotted to WXXI will not permit it to compete effectively in the Rochester market. An interference study was conducted using the NTIA-ITS-TAS program which indicates that the proposed allotment of Channel 16 would receive over 1000 sq km of interference from the existing Channel 16 NTSC facilities of WNPE-TV, Watertown, NY. Likewise WNPE would present a limitation on increasing the WXXI-DT power for maximization purposes. The study also indicates that WXXI could increase its DTV power in other directions if constrained to operate on Channel 16 for DTV service. However, the DTV allotment includes a directional antenna assumption that will severely impact WXXI's ability to increase power.



WXXI presently operates with an essentially non-directional antenna (a slight directionality exists as a result of the mechanical beam-tilting of an omnidirectional antenna). However, the Commission has generated, in its replication process, a directional antenna having a 16.1 dB maximum-to-minimum field ratio. Thus, if WXXI proposed to use an omnidirectional antenna, it would have to reduce its power by 16.1 dB or down to approximately 1.2 kilowatts. Alternatively, if it proposed a common directional antenna pattern, the mis-match between this pattern and the Commission's pattern will likely be in the order of 3-4 dB requiring a reduction in the maximum ERP to 20-30 kW.

#### Alternative Channel

A study has been conducted to identify another channel for DTV service which could provide the opportunity of rendering better service to the Rochester market. That study could not be completed because there has been no guidance from the Commission on the required protection of Canadian facilities; this is further complicated by the apparent lack of a Canadian DTV allotment table. It is impossible for WXXI to fully evaluate its allotment without complete knowledge of the requirements to protect Canadian facilities which will be imposed.

A study was also conducted to determine whether WXXI's existing NTSC service would be impacted by proposed DTV facilities. It was determined that significant interference would be received from the activation of WWTI-DT on Channel 21 which is co-channel with WXXI-TV.

A review of channel allotment alternatives at Watertown indicates that several possibilities may exist to allot a channel other than 21; Channel 14 appears to be assignable. This study, of course, was conducted without benefit of knowledge of the Canadian requirements.



### Conclusion

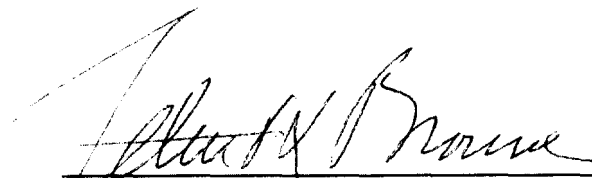
As a minimum, the WXXI-DT allotment should be amended to permit omnidirectional operation with 50 kW ERP.

Furthermore, since WXXI is unable to assess the viability of its DTV allotment absent the Canadian protection requirements, it is recommended that the Commission finalize its agreement with Canada before closing the door on the ability of border stations, such as WXXI-TV, to propose an alternative channel allotment not subject to the rule making process.

Finally, the Commission is urged to consider changing the DTV allotment on Channel 21 at Watertown, NY, in order to eliminate significant co-channel interference to WXXI-TV.

### Certification

This statement was prepared by me or under my direction. All assertions contained in the statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are believed to be true.

  
John F.X. Browne, P.E.  
August 21, 1997